

1           **1. (currently amended)**       A network system, comprising:

2           a first computer configured to maintain an object having an attribute, the  
3           attribute comprised of individual linked values, ~~the individual values each~~ having  
4           conflict-resolution data;

5           a second computer configured to replicate the object to generate a replica  
6           object and maintain a ~~replica object~~, the replica object being replicated from the  
7           object; and

8           the second computer further configured to ~~replicate the object from the first~~  
9           ~~computer and~~ resolve a replication conflict between a linked value of the attribute  
10          in the object and the linked value of the attribute in the replica object, the  
11          replication conflict being resolved with the conflict-resolution data associated with  
12          the linked value.

13  
14           **2. (currently amended)**       A network system as recited in claim 1,  
15          wherein the second computer is further configured to compare the conflict-  
16          resolution data associated with the linked value of the attribute in the object and  
17          the conflict-resolution data associated with the linked value of the attribute in the  
18          replica object to resolve the replication conflict.

19  
20           **3. (currently amended)**       A network system as recited in claim 1,  
21          wherein the conflict-resolution data comprises a version indicator that corresponds  
22          to a version of an individual linked value.

1           **4. (currently amended)**     A network system as recited in claim 1,  
2     wherein the conflict-resolution data comprises a version number that corresponds  
3     to a version of an individual linked value, and wherein the second computer is  
4     further configured to:

5                 compare the version number associated with the linked value of the  
6     attribute in the object and the version number associated with the linked value of  
7     the attribute in the replica object to resolve the replication conflict; and

8                 update the linked value of the attribute in the replica object if the linked  
9     value has a lower version number than the linked value of the attribute in the  
10    object.

11  
12           **5. (currently amended)**     A network system as recited in claim 1,  
13     wherein the conflict-resolution data comprises an update indicator that  
14     corresponds to when an individual linked value is updated.

1           6. (currently amended) A network system as recited in claim 1,  
2 wherein the conflict-resolution data comprises an update timestamp that  
3 corresponds to when an individual linked value is updated, and wherein the second  
4 computer is further configured to:

5           compare the update timestamp associated with the linked value of the  
6 attribute in the object and the update timestamp associated with the linked value of  
7 the attribute in the replica object to resolve the replication conflict; and

8           update the linked value of the attribute in the replica object if the linked  
9 value has an earlier update timestamp than the linked value of the attribute in the  
10 object.

11  
12           7. (currently amended) A network system as recited in claim 1,  
13 wherein the conflict-resolution data comprises a creation indicator that  
14 corresponds to when an individual linked value is created.

1           8. (currently amended) A network system as recited in claim 1,  
2 wherein the conflict-resolution data comprises a creation timestamp that  
3 corresponds to when an individual linked value is created, and wherein the second  
4 computer is further configured to:

5           compare the creation timestamp associated with the linked value of the  
6 attribute in the object and the creation timestamp associated with the linked value  
7 of the attribute in the replica object to resolve the replication conflict; and

8           update the linked value of the attribute in the replica object if the linked  
9 value has an earlier creation timestamp than the linked value of the attribute in the  
10 object.

11           C1  
12           9. (currently amended) A network system as recited in claim 1,  
13 wherein the conflict-resolution data comprises a version indicator that corresponds  
14 to a version of an individual linked value and an update indicator that corresponds  
15 to when the individual linked value is updated.

1           **10. (currently amended)**    A network system as recited in claim 1,  
2   wherein the conflict-resolution data comprises a version number that corresponds  
3   to a version of an individual linked value and an update timestamp that  
4   corresponds to when the individual linked value is updated, and wherein the  
5   second computer is further configured to:

6            compare the conflict-resolution data associated with the linked value of the  
7   attribute in the object and the conflict-resolution data associated with the linked  
8   value of the attribute in the replica object; and

9            resolve the replication conflict in favor of the linked value that first has a  
10   higher version number, and second has a later update timestamp.

11  
12           **11. (currently amended)**    A network system as recited in claim 1,  
13   wherein the conflict-resolution data comprises a version number that corresponds  
14   to a version of an individual linked value and an update timestamp that  
15   corresponds to when the individual linked value is updated, and wherein the  
16   second computer is further configured to:

17            compare the conflict-resolution data associated with the linked value of the  
18   attribute in the object and the conflict-resolution data associated with the linked  
19   value of the attribute in the replica object to resolve the replication conflict;

20            update the linked value of the attribute in the replica object if the linked  
21   value has a lower version number than the linked value of the attribute in the  
22   object; and

23            if the version number associated with the linked value of the attribute in the  
24   replica object is equivalent to the version number associated with the linked value

1 of the attribute in the object, update the linked value of the attribute in the replica  
2 object if the linked value has an earlier update timestamp than the linked value of  
3 the attribute in the object.

4

5 **12. (currently amended)** A network system as recited in claim 1,  
6 wherein the conflict-resolution data comprises a creation indicator that  
7 corresponds to when an individual linked value is created, a version indicator that  
8 corresponds to a version of the individual linked value, and an update indicator  
9 that corresponds to when the individual linked value is updated.

10

11 **13. (currently amended)** A network system as recited in claim 1,  
12 wherein the conflict-resolution data comprises a creation timestamp that  
13 corresponds to when an individual linked value is created, a version number that  
14 corresponds to a version of the individual linked value, and an update timestamp  
15 that corresponds to when the individual linked value is updated, and wherein the  
16 second computer is further configured to:

17 compare the conflict-resolution data associated with the linked value of the  
18 attribute in the object and the conflict-resolution data associated with the linked  
19 value of the attribute in the replica object; and

20 resolve the replication conflict in favor of the linked value that first has a  
21 later creation timestamp, second has a higher version number, and third has a later  
22 update timestamp.

1           **14. (currently amended)**       A network system as recited in claim 1,  
2       wherein the conflict-resolution data comprises a creation timestamp that  
3       corresponds to when an individual linked value is created, a version number that  
4       corresponds to a version of the individual linked value, and an update timestamp  
5       that corresponds to when the individual linked value is updated, and wherein the  
6       second computer is further configured to:

7               compare the conflict-resolution data associated with the linked value of the  
8       attribute in the object and the conflict-resolution data associated with the linked  
9       value of the attribute in the replica object to resolve the replication conflict;

10              update the linked value of the attribute in the replica object if the linked  
11       value has an earlier creation timestamp than the linked value of the attribute in the  
12       object;

13              if the creation timestamp associated with the linked value of the attribute in  
14       the replica object is equivalent to the creation timestamp associated with the linked  
15       value of the attribute in the object, update the linked value of the attribute in the  
16       replica object if the linked value has a lower version number than the linked value  
17       of the attribute in the object; and

18              if the version number associated with the linked value of the attribute in the  
19       replica object is equivalent to the version number associated with the linked value  
20       of the attribute in the object, update the linked value of the attribute in the replica  
21       object if the linked value has an earlier update timestamp than the linked value of  
22       the attribute in the object.

1           **15. (currently amended)**     A network system as recited in claim 1,  
2     wherein the individual linked values have an associated deletion indicator that is a  
3     null identifier to indicate the existence of a linked value of the attribute in the  
4     object.

5  
6           **16. (currently amended)**     A network system as recited in claim 1,  
7     wherein the individual linked values have an associated deletion indicator that  
8     corresponds to when an individual linked value is marked for deletion from the  
9     attribute in the object.

10  
11          **17. (currently amended)**     A network system as recited in claim 1,  
12     wherein the individual linked values have an associated deletion timestamp that  
13     corresponds to when an individual linked value is marked for deletion from the  
14     attribute in the object, and wherein the second computer is further configured to  
15     delete a linked value from the attribute in the object if the linked value has a  
16     deletion timestamp that indicates the linked value is marked for deletion.

17  
18          **18. (currently amended)**     A state-based replication system,  
19     comprising:

20            an object having an attribute comprised of linked values, individual linked  
21     values having indicators to indicate a change to a linked value of the attribute; and

22            a computing device configured to replicate the object and, ~~with the~~  
23     ~~indicators~~, identify a change to a linked value of the attribute by one or more  
24     indicators associated with the linked value.

1           **19. (previously presented)** A state-based replication system as  
2 recited in claim 18, wherein the computing device is further configured to:

3           maintain a replica object, the replica object being replicated from the  
4 object; and

5           compare the object with the replica object to identify, with the indicators, a  
6 linked value replication conflict.

7  
8           **20. (previously presented)** A state-based replication system as  
9 recited in claim 18, wherein the indicators comprise a version indicator that  
10 corresponds to a version of a linked value.

11  
12           **21. (previously presented)** A state-based replication system as  
13 recited in claim 18, wherein the indicators comprise an update indicator that  
14 corresponds to when a linked value is changed.

15  
16           **22. (previously presented)** A state-based replication system as  
17 recited in claim 18, wherein the indicators comprise a creation indicator that  
18 corresponds to when a linked value is created.

19  
20           **23. (previously presented)** A state-based replication system as  
21 recited in claim 18, wherein the indicators comprise a version number that  
22 corresponds to a version of a linked value and an update timestamp that  
23 corresponds to when the linked value is changed.

1           **24. (previously presented)** A state-based replication system as  
2 recited in claim 18, wherein the indicators comprise a creation timestamp that  
3 corresponds to when a linked value is created, a version number that corresponds  
4 to a version of the linked value, and an update timestamp that corresponds to when  
5 the linked value is changed.

6

7           **25. (previously presented)** A state-based replication system as  
8 recited in claim 18, wherein the indicators comprise a deletion indicator that has a  
9 null identifier to indicate the existence of a linked value of the attribute.

10

11           **26. (previously presented)** A state-based replication system as  
12 recited in claim 18, wherein the indicators comprise a deletion timestamp that  
13 corresponds to when a linked value is marked for deletion from the attribute.

1           **27. (currently amended)**       A state-based replication system,  
2 comprising:

3           a first computer configured to maintain a first data structure, the first data  
4 structure having a multi-valued attribute comprised of multiple linked values,  
5 individual linked values having conflict-resolution information to indicate a  
6 change to a linked value of the attribute;

7           a second computer configured to maintain a second data structure having  
8 the multi-valued attribute comprised of the linked values; and

9           the first and second data structures configured to be replicated and to have a  
10 replication conflict between a linked value of the attribute in the first data structure  
11 and a linked value of the attribute in the second data structure resolved with the  
12 conflict-resolution information associated with the linked values.

13  
14           **28. (currently amended)**       A state-based replication system as  
15 recited in claim 27, wherein the first and second computers are further configured  
16 to:

17           compare the conflict-resolution information associated with the linked  
18 value of the attribute in the first data structure with the conflict-resolution  
19 information associated with the linked value of the attribute in the second data  
20 structure;

21           identify a replication conflict; and

22           resolve the replication conflict with the conflict-resolution information  
23 associated with the linked values.

1           **29. (original)** A state-based replication system as recited in claim 27,  
2 wherein the conflict-resolution information comprises a version indicator that  
3 corresponds to a version of an individual linked value.

4  
5           **30. (original)** A state-based replication system as recited in claim 27,  
6 wherein:

7           the conflict-resolution information comprises a version number that  
8 corresponds to a version of an individual linked value;

9           the first and second computers are further configured to compare the  
10 version number associated with the linked value of the attribute in the first data  
11 structure with the version number associated with the linked value of the attribute  
12 in the second data structure;

13           the first computer is further configured to update the linked value of the  
14 attribute in the first data structure if the linked value has a lower version number  
15 than the linked value of the attribute in the second data structure; and

16           the second computer is further configured to update the linked value of the  
17 attribute in the second data structure if the linked value has a lower version  
18 number than the linked value of the attribute in the first data structure.

19  
20           **31. (original)** A state-based replication system as recited in claim 27,  
21 wherein the conflict-resolution information comprises an update indicator that  
22 corresponds to when an individual linked value is changed.

1           **32. (original)**   A state-based replication system as recited in claim 27,

2           wherein:

3           the conflict-resolution information comprises an update timestamp that  
4           corresponds to when an individual linked value is changed;

5           the first and second computers are further configured to compare the update  
6           timestamp associated with the linked value of the attribute in the first data  
7           structure with the update timestamp associated with the linked value of the  
8           attribute in the second data structure;

9           the first computer is further configured to update the linked value of the  
10          attribute in the first data structure if the linked value has an earlier update  
11          timestamp than the linked value of the attribute in the second data structure; and

12          the second computer is further configured to update the linked value of the  
13          attribute in the second data structure if the linked value has an earlier update  
14          timestamp than the linked value of the attribute in the first data structure.

15  
16          **33. (original)**   A state-based replication system as recited in claim 27,  
17           wherein the conflict-resolution information comprises a creation indicator that  
18           corresponds to when an individual linked value is created.

1           **34. (original)**   A state-based replication system as recited in claim 27,

2           wherein:

3           the conflict-resolution information comprises a creation timestamp that  
4           corresponds to when an individual linked value is created;

5           the first and second computers are further configured to compare the  
6           creation timestamp associated with the linked value of the attribute in the first data  
7           structure with the creation timestamp associated with the linked value of the  
8           attribute in the second data structure;

9           the first computer is further configured to update the linked value of the  
10           attribute in the first data structure if the linked value has an earlier creation  
11           timestamp than the linked value of the attribute in the second data structure; and

12           the second computer is further configured to update the linked value of the  
13           attribute in the second data structure if the linked value has an earlier creation  
14           timestamp than the linked value of the attribute in the first data structure.

15  
16           **35. (original)**   A state-based replication system as recited in claim 27,  
17           wherein the conflict-resolution information comprises a version indicator that  
18           corresponds to a version of an individual linked value and an update indicator that  
19           corresponds to when the individual linked value is changed.

1           36. (original) A state-based replication system as recited in claim 27,  
2 wherein the conflict-resolution information comprises a creation indicator that  
3 corresponds to when an individual linked value is created, a version indicator that  
4 corresponds to a version of the individual linked value, and an update indicator  
5 that corresponds to when the individual linked value is changed.

6

7           37. (original) A state-based replication system as recited in claim 27,  
8 wherein the individual linked values have an associated deletion indicator that is a  
9 null identifier to indicate the existence of a linked value of the multi-valued  
10 attribute.

11

12           38. (original) A state-based replication system as recited in claim 27,  
13 wherein the individual linked values have an associated deletion indicator that  
14 corresponds to when an individual linked value is marked for deletion from the  
15 multi-valued attribute.

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1           **39. (previously presented)** A computer-readable medium having  
2 stored thereon a data structure, comprising:

3           a first data field containing an attribute;  
4           a second data field containing a linked value of the attribute contained in  
5 the first data field;

6           a third data field containing a version indicator corresponding to a version  
7 of the linked value contained in the second data field; and

8           a fourth data field containing an update indicator corresponding to when the  
9 version indicator contained in the third data field is changed.

10  
11           **40. (previously presented)** A computer-readable medium as recited  
12 in claim 39, wherein the data structure further comprises a fifth data field  
13 containing a creation indicator corresponding to when the linked value contained  
14 in the second data field is created.

15  
16           **41. (previously presented)** A computer-readable medium as recited  
17 in claim 39, wherein the data structure further comprises a sixth data field  
18 containing a deletion indicator corresponding to the linked value contained in the  
19 second data field and configured to indicate when the linked value is marked for  
20 deletion from the data structure.

1           **42. (currently amended)**     A network system, comprising:

2           a first computer configured to replicate objects at an attribute level, and  
3           further configured to maintain an object having a multi-valued attribute, the multi-  
4           valued attribute comprised of individual multiple linked values;

5           a second computer configured to replicate objects at an attribute value  
6           level, and further configured to maintain a second object, the second object having  
7           a multi-valued attribute comprised of individual multiple linked values, the  
8           individual multiple linked values configured to have conflict-resolution data;

9           the first computer further configured to:

10           replicate the second object from the second computer; and

11           ~~resolve a replication conflict between the object and the second~~  
12           ~~object at the attribute level; and~~

13           resolve a replication conflict between the object and the second  
14           object at the attribute value level with the conflict-resolution data  
15           associated with a linked value.

16  
17           **43. (original)**     A network system as recited in claim 42, wherein the  
18           first computer first resolves the replication conflict between the object and the  
19           second object at the attribute level, and second resolves the replication conflict  
20           between the object and the second object at the attribute value level.

21  
22           **44. (original)**     A network system as recited in claim 42, wherein the  
23           first computer does not replicate a value from the second object if the value does  
24           not have conflict-resolution data.

1           **45. (original)** A network system as recited in claim 42, wherein the  
2 first computer does not replicate a value from the second object if the value has  
3 null conflict-resolution data.

4  
5           **46. (original)** A network system as recited in claim 42, wherein the  
6 first computer resolves the replication conflict between the object and the second  
7 object at the attribute value level in favor of a value that has conflict-resolution  
8 data.

9  
10          **47. (original)** A network system as recited in claim 42, wherein the  
11 first computer resolves the replication conflict between the object and the second  
12 object at the attribute value level in favor of a value that has non-null conflict-  
13 resolution data.

14  
15          **48. (currently amended)** A network system as recited in claim 42,  
16 wherein the second computer is further configured to:

17           replicate the object from the first computer; and  
18           ~~resolve a replication conflict between the object and the second~~  
19           ~~object at the attribute level; and~~  
20           resolve a replication conflict between the object and the second  
21           object at the attribute value level with the conflict-resolution data.

1           **49. (original)** A network system as recited in claim 48, wherein the  
2 second computer first resolves the replication conflict between the object and the  
3 second object at the attribute level, and second resolves the replication conflict  
4 between the object and the second object at the attribute value level.

5  
6           **50. (original)** A network system as recited in claim 48, wherein the  
7 second computer does not replicate a value from the object if the value does not  
8 have conflict-resolution data.

9  
10          **51. (original)** A network system as recited in claim 48, wherein the  
11 second computer does not replicate a value from the object if the value has null  
12 conflict-resolution data.

13  
14          **52. (original)** A network system as recited in claim 48, wherein the  
15 second computer resolves the replication conflict between the object and the  
16 second object at the attribute value level in favor of a value that has conflict-  
17 resolution data.

18  
19          **53. (original)** A network system as recited in claim 48, wherein the  
20 second computer resolves the replication conflict between the object and the  
21 second object at the attribute value level in favor of a value that has non-null  
22 conflict-resolution data.

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1           **54. (original)** A network system as recited in claim 48, wherein the  
2 second computer is further configured to delete a value from the second object if  
3 the value does not have conflict resolution data, and if the value is not replicated  
4 from the object.

5  
6           **55. (currently amended)** A method, comprising:  
7           replicating an object stored in a first directory with a replica object stored in  
8 a second directory, the object and the replica object each having an attribute  
9 comprised of individual multiple linked values, the individual multiple linked  
10 values each having conflict-resolution data;

11           comparing a an individual linked value of the attribute in the object with a  
12 an individual linked value of the attribute in the replica object to identify a  
13 replication conflict; and

14           resolving the replication conflict with the conflict-resolution data associated  
15 with the individual linked values.

16  
17           **56. (currently amended)** A method as recited in claim 55, wherein  
18 the conflict-resolution data comprises a version number that corresponds to a  
19 version of an individual linked value, and wherein said comparing comprises  
20 determining if a an individual linked value version number has been changed.

1           **57. (currently amended)**       A method as recited in claim 55, wherein  
2 the conflict-resolution data comprises a version number that corresponds to a  
3 version of an individual linked value, said comparing comprises determining if a  
4 an individual linked value version number has been changed, and the method  
5 further comprises updating the individual linked value of the attribute that has a  
6 lower version number with the individual linked value of the attribute that has a  
7 higher version number.

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9           **58. (currently amended)**       A method as recited in claim 55, wherein  
10 the conflict-resolution data comprises an update timestamp that corresponds to  
11 when an individual linked value is changed, and wherein said comparing  
12 comprises determining if a an individual linked value update timestamp has been  
13 changed.

14

15           **59. (currently amended)**       A method as recited in claim 55, wherein  
16 the conflict-resolution data comprises an update timestamp that corresponds to  
17 when an individual linked value is changed, said comparing comprises  
18 determining if a an individual linked value update timestamp has been changed,  
19 and the method further comprises updating the individual linked value of the  
20 attribute that has an earlier update timestamp with the individual linked value of  
21 the attribute that has a later update timestamp.

1           **60. (currently amended)**       A method as recited in claim 55, wherein  
2 the conflict-resolution data comprises a creation timestamp that corresponds to  
3 when an individual linked value is created, and wherein said comparing comprises  
4 determining if a creation timestamp has been changed.

5  
6           **61. (currently amended)**       A method as recited in claim 55, wherein  
7 the conflict-resolution data comprises a creation timestamp that corresponds to  
8 when an individual linked value is created, said comparing comprises determining  
9 if a creation timestamp has been changed, and the method further comprises  
10 updating the individual linked value of the attribute that has an earlier creation  
11 timestamp with the individual linked value of the attribute that has a later creation  
12 timestamp.

13  
14           **62. (currently amended)**       A method as recited in claim 55, wherein  
15 the conflict-resolution data comprises a version number that corresponds to a  
16 version of an individual linked value and an update timestamp that corresponds to  
17 when the individual linked value is changed, and wherein said comparing  
18 comprises determining if a an individual linked value version number has been  
19 changed and if the individual linked value update timestamp has been changed.

1           **63. (currently amended)**    A method as recited in claim 55, wherein  
2 the conflict-resolution data comprises a version number that corresponds to a  
3 version of an individual linked value and an update timestamp that corresponds to  
4 when the individual linked value is changed, and the method further comprises  
5 updating the individual linked value of the attribute that first has a lower version  
6 number, and second has an earlier update timestamp.

7  
8           **64. (original)**    A computer-readable medium comprising computer  
9 executable instructions that, when executed, direct a computing system to perform  
10 the method of claim 63.

11  
12           **65. (currently amended)**    A method as recited in claim 55, wherein  
13 the conflict-resolution data comprises a creation timestamp that corresponds to  
14 when an individual linked value is created, a version number that corresponds to a  
15 version of the individual linked value, and an update timestamp that corresponds  
16 to when the individual linked value is changed, and wherein said comparing  
17 comprises determining if a an individual linked value creation timestamp has been  
18 changed, if the individual linked value version number has been changed, and if  
19 the individual linked value update timestamp has been changed.

1           **66. (currently amended)**     A method as recited in claim 55, wherein  
2 the conflict-resolution data comprises a creation timestamp that corresponds to  
3 when an individual linked value is created, a version number that corresponds to a  
4 version of the individual linked value, and an update timestamp that corresponds  
5 to when the individual linked value is changed, and the method further comprises  
6 updating the individual linked value of the attribute that first has an earlier  
7 creation timestamp, second has a lower version number, and third has an earlier  
8 update timestamp.

9  
10           **67. (original)**     A computer-readable medium comprising computer  
11 executable instructions that, when executed, direct a computing system to perform  
12 the method of claim 66.

13  
14           **68. (currently amended)**     A method as recited in claim 55, wherein  
15 the individual linked values have a deletion timestamp that is a null identifier to  
16 indicate the existence of a linked value of the attribute.

17  
18           **69. (currently amended)**     A method as recited in claim 55, wherein  
19 the individual linked values have a deletion timestamp that corresponds to when  
20 an individual linked value is marked for deletion from the attribute.

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1           **70. (currently amended)** A method as recited in claim 55, wherein  
2 the individual linked values have a deletion timestamp that corresponds to when  
3 an individual linked value is marked for deletion from the attribute, and the  
4 method further comprises deleting a linked value from the attribute if the linked  
5 value has a deletion timestamp that indicates the linked value is marked for  
6 deletion.

7  
8           **71. (original)** A computer-readable medium comprising computer  
9 executable instructions that, when executed, direct a computing system to perform  
10 the method of claim 70.

11  
12           **72. (original)** A computer-readable medium comprising computer  
13 executable instructions that, when executed, direct a computing system to perform  
14 the method of claim 55.

1           **73. (original)** A method for replicating a linked value of a  
2 multi-valued attribute contained in an object, the linked value having  
3 conflict-resolution information and replicated from a replica object having the  
4 multi-valued attribute and the linked value, the method comprising:

5           comparing the conflict-resolution information associated with the linked  
6 value in the object with the conflict-resolution information associated with the  
7 linked value in the replica object;

8           identifying a replication conflict with the conflict-resolution information;  
9 and

10           resolving the replication conflict with the conflict-resolution information.

11           **C1**  
12           **74. (original)** A method as recited in claim 73, wherein the  
13 conflict-resolution information comprises a version number that corresponds to a  
14 version of the linked value, and the method further comprising:

15           determining if the linked value version number has been changed; and

16           updating the linked value of the attribute that has a lower version number  
17 with the linked value of the attribute that has a higher version number.

18  
19           **75. (original)** A method as recited in claim 73, wherein the  
20 conflict-resolution information comprises an update timestamp that corresponds to  
21 when the linked value is changed, and the method further comprising:

22           determining if the linked value update timestamp has been changed; and

23           updating the linked value of the attribute that has an earlier update  
24 timestamp with the linked value of the attribute that has a later update timestamp.

1           **76. (original)** A method as recited in claim 73, wherein the  
2 conflict-resolution information comprises a creation timestamp that corresponds to  
3 when the linked value is created, and the method further comprising:

4           determining if the linked value creation timestamp has been changed; and

5           updating the linked value of the attribute that has an earlier creation  
6 timestamp with the linked value of the attribute that has a later creation timestamp.

7  
8           **77. (original)** A method as recited in claim 73, wherein the  
9 conflict-resolution information comprises a creation timestamp that corresponds to  
10 when the linked value is created, a version number that corresponds to a version of  
11 the linked value, and an update timestamp that corresponds to when the linked  
12 value is changed.

13  
14           **78. (original)** A method as recited in claim 73, wherein the  
15 conflict-resolution information comprises a creation timestamp that corresponds to  
16 when the linked value is created, a version number that corresponds to a version of  
17 the linked value, and an update timestamp that corresponds to when the linked  
18 value is changed, and the method further comprises updating the linked value of  
19 the attribute if the linked value first has an earlier creation timestamp, second has a  
20 lower version number, and third has an earlier update timestamp.

21  
22           **79. (original)** A computer-readable medium comprising computer  
23 executable instructions that, when executed, direct a computing system to perform  
24 the method of claim 78.

1           **80. (original)** A computer-readable medium comprising computer  
2 executable instructions that, when executed, direct a computing system to perform  
3 the method of claim 73.

4

5           **81. (currently amended)** A method, comprising:  
6           replicating a first object with a second object, the first object having an  
7 attribute comprised of multiple linked values, the second object having an attribute  
8 comprised of multiple linked values configured to have associated  
9 conflict-resolution data;

10           resolving first a replication conflict between the first object and the second  
11 object at an attribute level; and

12           resolving second, with the conflict-resolution data, a replication conflict  
13 between the first object and the second object at an attribute value level.

14

15           **82. (previously presented)** A method as recited in claim 81, further  
16 comprising determining whether a linked value corresponding to the second object  
17 has conflict-resolution data and said replicating the linked value if said  
18 determining that the linked value has conflict-resolution data.

19

20           **83. (previously presented)** A method as recited in claim 81, further  
21 comprising determining whether a linked value corresponding to the second object  
22 has non-null conflict-resolution data and said replicating the linked value if said  
23 determining that the linked value has non-null conflict-resolution data.

1           **84. (previously presented)** A method as recited in claim 81, said  
2 resolving the replication conflict between the first object and the second object at  
3 the attribute value level in favor of a linked value that has conflict-resolution data.  
4

5           **85. (previously presented)** A method as recited in claim 81, further  
6 comprising deleting a linked value corresponding to the second object if the linked  
7 value does not have conflict-resolution data and if the linked value is not  
8 replicated.  
9

10          **86. (original)** A computer-readable medium comprising computer  
11 executable instructions that, when executed, direct a computing system to perform  
12 the method of claim 81.  
13

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